Amendments to the Claims

Please amend Claim(s) 4, 5, 10 and 11. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1.   (Previously presented) A method for supporting wireless communications, the method comprising the steps of:

allocating a first channel to support message transmissions from a base station to multiple field units;

allocating a second channel to support message transmissions from the field units to the base station;

assigning time slots in the first and second channel for message transmissions between the base station and field units; and

maintaining synchronization between a selected one of the field units and the base station by analyzing a message received in a time slot and adjusting timing of the selected one field unit by transmitting a feedback message to the selected field unit.

2.   (Original) A method as in claim 1 further comprising the step of:

partitioning the first channel into active and standby time slots, wherein active time slots correspond with field units transmitting a data payload on a reverse link traffic channel.

3.   (Original) A method as in claim 2 further comprising the steps of:

detecting a request by a field unit to transmit a data payload from the field unit to the base station;

assigning the requesting field unit an active slot in the first channel; and

allocating traffic channels to support a data transfer between the requesting field unit and the base station.

4.   (Currently amended) A method as in claim 3 further comprising the step of:

reassigning [[a]] the field unit a standby time slot in the first channel after completion of the data transfer.

5.   (Currently amended) A method as in claim 3 further comprising the step of:

maintaining synchronization between [[a]] the field unit and the base station by analyzing at least one message received on a traffic channel and adjusting timing of the field unit based upon a feedback message to the field unit to advance or retard timing.

6.   (Original) A method as in claim 5 wherein the base station analyzes timing of a marker in the traffic channel to maintain synchronization.

7.   (Original) A method as in claim 6 wherein the marker in a traffic channel is a string of pilot symbols.

8.   (Original) A method as in claim 1 further comprising the step of:

dividing the first and second channels into a predetermined number of time slots to support periodic communications between the base station and each of multiple field units.

9.   (Original) A method as in claim 1 further comprising the steps of:

detecting a request by a field unit to establish a link with the base station;

analyzing the request to determine an initial timing adjustment to be made at the field unit for synchronization; and

transmitting timing adjustment information to the field unit for synchronizing the field unit with the base station.

10.   (Currently amended) A method as in claim 9, wherein the timing adjustment information is transmitted to [[a]] the field unit over a paging channel.

11. (Currently amended) A method as in claim 9, wherein the timing adjustment information is a multi-bit value transmitted to [[a]] the field unit notifying the requesting field unit of an amount to advance or retard timing.

12. (Original) A method as in claim 1, wherein field units are notified of time slot assignments based upon messages over a forward link paging channel.

13. (Original) A method as in claim 1, wherein the base station analyzes a field unit message and determines whether to advance or retard timing of the field unit.

14. (Original) A method as in claim 1, wherein time slots are assigned in the first and second channel based on a predetermined offset.

15. (Original) A method as in claim 1, wherein a single bit in a time slot indicates whether a corresponding field unit should advance or retard timing.

16. (Original) A method as in claim 1, wherein message transmissions on the first channel are encoded using BCH.

17. (Original) A method as in claim 1 further comprising the step of:

assigning short PN codes for use by a field unit, a short PN code being transmitted by the field unit in an assigned time slot to provide an indication to the base station.

18. (Original) A method as in claim 17, wherein an assigned short PN code indicates a request by the field unit to transmit a data payload to the base station.

19. (Original) A method as in claim 17, wherein an assigned short PN code indicates a request by the field unit to remain in a standby mode.

20.   (Original) A method for synchronizing wireless communications between a base station and a field unit, the method comprising the steps of:

assigning time slots of a forward link channel to each of a plurality of field units in which a base station transmits messages, each field unit determining messages directed to the field unit based upon receipt of a message in a particular time slot;

assigning time slots in a reverse link channel in which the field units transmit messages to the base station, the base station identifying from which field unit transmitted a message based upon reception in a particular time slot;

adjusting message transmissions from each field unit such that messages transmitted from the plurality of field units arrive at the base station in a corresponding time slot of the reverse link channel.

21.   (Original) A method as in claim 20 further comprising the step of:

analyzing messages received by field units and transmitting a message on the forward link to a corresponding field unit to adjust timing on the reverse link channel.

22.   (Original) A method as in claim 21, wherein the message to adjust timing in the reverse link channel for a particular field unit includes an indication whether to advance or retard timing.

23.   (Original) A method as in claim 22, wherein the indication of whether to advance or retard timing is based on a single bit from the base station indicating to advance or retard timing a first predefined amount.

24.   (Original) A method as in claim 23, wherein timing is advanced or retarded based on a second predefined time if the single bit is a same state for a specified number of time periods in a row, the second predefined time greater than the first predefined time.

25.   (Previously presented) A method for supporting wireless communications between a base station and a plurality of field units, the method comprising the steps of:

allocating a first channel to support message transmissions from the base station to the field units;

allocating a second channel to support message transmissions from the field units to the base station;

assigning time slots in the first and second channel for message transmissions between the base station and each field unit; and

assigning a set of codes for use by a field unit, each code corresponding to a message that is transmitted in a time slot on the second channel, a code being transmitted by the field unit on the second channel to provide an indication to the base station.

26.   (Original) A method as in claim 25, wherein the set of codes is unique to each field unit.

27.   (Previously presented) A method as in claim 25, wherein the set of codes is a set of short PN codes.

28.   (Cancelled).

29.   (Previously presented) A method as in claim 25, wherein a code of the set of codes indicates a request by the field unit to be allocated reverse traffic channels for transmitting a data payload to the base station.